

VERSION WITH MARKINGS TO SHOW CHANGES MADE

In the Claims

The claims have been amended as follows:

1. (Amended) A device ~~allowing to separate for separating~~ at least one compound from a mixture or a body by adsorption with a simulated moving bed, comprising at least:

[•] an enclosure or column comprising one or more adsorbent beds (Ai), two adsorbent beds being separated by at least one fluid distribution and extraction plate (Pi), the plate comprising one or more panels allowing distribution, mixing and/or extraction of the fluids, at least one panel comprising a single distribution, mixing and/or extraction chamber (Ci).

[•] ~~several a plurality of lines (10, 11, 12, 13, Ti)~~ allowing for extraction or injection of secondary fluids.

[•] a bypass circuit communicating a distribution plate with at least one bypass line (Li,j), wherein

• ~~the panel comprises a single distribution, mixing and/or extraction chamber (ci), characterized in that:~~

[•] the device comprises means (14, Voi,j, 20) for communicating said at least one single distribution, mixing and/or extraction chamber (Ci) with at least one bypass line (Li,j),

[•] at least one end of a bypass line communicates with a zone (Ri, R'i) of an adsorbent bed, said zone being distinct from a said distribution chamber (Ci), and another end is connected to said chamber (Ci).

4. (Amended) A device as claimed in claim 3, characterized in that said rotary valve (20) ~~allows to communicate several~~ is in communication with a plurality of groups of lines, group G<sub>1</sub>, group G<sub>2</sub> and group G<sub>3</sub>, said valve comprising:

• a stator (110) provided with several means (E, F, R, S) intended for circulation of the fluid(s) of group G<sub>1</sub>, means (115, 116) allowing passage of at least two fluids F<sub>1</sub>, F<sub>2</sub> belonging to group G<sub>3</sub>,

a rotor (117) equipped with means (119) allowing passage of the fluids of group G<sub>3</sub> and means (120) allowing for communication of either the fluids of group G<sub>1</sub> with group G<sub>3</sub>, or of group G<sub>3</sub> with Group G<sub>1</sub>,

- the number of means (115) intended for passage of fluid F<sub>1</sub> is and (116) comprising a substantially equal number of passages, to the number of means (116) intended for passage of fluid F<sub>2</sub>, said valve comprises means (122) for communicating at least two fluids of group G<sub>3</sub> and flow section S<sub>1</sub> of the ports intended for fluid F<sub>1</sub> is different from flow section S<sub>2</sub> of the ports intended for fluid F<sub>2</sub>.

5. (Amended) A device as claimed in claim 4, characterized in that the means provided on the valve for passage of fluid F<sub>1</sub> and of fluid F<sub>2</sub> have flow surface areas S<sub>1</sub> and S<sub>2</sub> respectively and in that the S<sub>1</sub>/S<sub>2</sub> ratio is about 4 and preferably ranges between 2 and 10.

6. (Twice Amended) A device as claimed in claim 4, characterized in that said means allowing communication of the fluids of group G<sub>3</sub> consists of slots (122) provided in a layer of material or liner deposited on the lower face of the rotor.

8. (Twice Amended) A device as claimed in claim 4, characterized in that wherein said circulation means (E, R, S, F) consist of several comprises a plurality of grooves arranged on the resting face or upper face of the stator and in that slots (122) are provided in the liner.

9. (Twice Amended) A device as claimed in claim 4, characterized in that circulation means (E, R, S, F) are 4 in number.

10. (Amended) A device as claimed in claim 1, characterized in that said enclosure comprises a non-perforated central tube over at least part of the length thereof, and in that the panels forming a plate exhibit consist a tangential type cutout, zone (R<sub>i</sub>, R'<sub>i</sub>) comprises at least one diverted fluid distribution means (53, 54), and the end of bypass line (L<sub>i,j</sub>) opens into said

distribution means (53, 54).

11. (Amended) A device as claimed in claim 10, characterized in that the fluid distribution circuit is arranged around said enclosure and in that it comprises a main line (61) divided into several a plurality of secondary lines (62, 63, 62a, 62b, ...) so that the fluid(s) reach the panels forming a plate substantially at the same time.

12. (Amended) A device as claimed in claim 1, characterized in that the plates exhibit forma parallel type cutout and in that the fluid distribution device comprises a main line, and the bypass line is connected to an adsorbent bed by means of a device comprising transfer ports, said device being mounted on the fluid distribution spider.

14. (Amended) A device as claimed in claim 1, characterized in that a plate econsists of several comprises a plurality of panels exhibiting forming a radial type cutout, the enclosure comprises a central tube and a secondary fluid distribution ring associated in communication with a distribution plate, diverted fluid distribution means, said means being arranged below the distribution ring and said means being connected to the end of the bypass line, itself said bypass line being connected to a zone of an adsorbent bed.

18. (Amended) A In a process intended for comprising injection of a diverted fluid in a simulated moving bed separation process, comprising at least the following stages:

- [•] circulating a main fluid through several a plurality of adsorbent beds,
- [•] injecting and extracting secondary fluids (feed, desorbent, ...) comprising feed, desorbent, extract and/or raffinate according to a suitable sequence sequentially in order to achieve separation of the constituents of the feed,
- [•] injecting a diverted fluid,

characterized in that the improvement wherein at least part of the main fluid is circulated outside the enclosure allowing separation by means of a bypass line comprising at least two ends, one

end being connected to a zone of an adsorbent bed distinct from a chamber (C<sub>i</sub>) so as to inject and/or to extract part of the main fluid in the zone.

21. (Twice Amended) Application of the deviee A process as claimed in claim 4  
18, and of the process as claimed in any one of claims 18 to 20 for separation of paraxylene from  
aromatic hydrocarbon-containing feeds with eight carbon atoms.

Claims 22 and 23 are newly added.